cost-effective situation was maintained in all sensitivity analyses. In deterministic analysis, the results were most sensitive to differences in index hospitalisation length of stay between strategies and proportional GPI utilisation (eptifibatide/abciximab). In probabilistic analysis, 95.6% of samples (9,557 of 10,000) indicated a dominant situation. **CONCLUSIONS:** The use of bivalirudin instead of heparin plus GPI is dominant, i.e. clinically advantageous and cost-saving, in STEMI patients planned for PPCI, when UK valuations are applied to the HORIZONS study.

PCV117

COST-UTILITY OF BOSENTAN IN THE FIRST-LINE TREATMENT OF PULMONARY ARTERIAL HYPERTENSION IN FINLAND—A DISCRETE EVENT SIMULATION MODELLING

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OBJECTIVES: Pulmonary Arterial Hypertension (PAH) is a devastating disease, which has a significant impact on patients' quality of life and mortality. Both bosentan and inhaled iloprost (INHI) have demonstrated prolonged survival in long-term observational studies. We assessed the cost-effectiveness of adding bosentan, INHI or no active treatment (NAT) to palliative care, for patients with PAH of functional class (FC) III in Finland. **METHODS:** A cost-utility model simulated hypothetical patients with PAH, using a lifetime horizon and considering only direct medical costs. Patients were assumed to either remain in their FC at 12 weeks until death or to deteriorate to FC IV and then receive INHI and palliative care until death. It was assumed that the initial choice of treatment would not affect survival, but instead would affect the proportion of time spent in FC IV. Deterioration was approximated by time to clinical worsening (TTCW), a composite measure of death or worsening of PAH leading to a change in treatment. Data on TTCW was taken from published literature and hospital databases containing over three years of data for bosentan and from published literature for palliative care alone. For INHI, the TTCW was favourably assumed to equal that for bosentan. The utility associated with each FC taken from published literature; non-drug costs were estimated based on published literature and verified by a Finnish expert clinician. Costs and benefits were discounted at 3% per annum. **RESULTS:** Bosentan dominated INHI, providing equivalent QALYs at a reduced cost. Bosentan also dominated NAT, providing an additional 0.38 QALYs whilst saving €8.142. Probabilistic sensitivity analyses estimated the probabilities of bosentan being cost-effective compared with NAT as 79% and 86% at cost per QALY thresholds of €30,000 and €50,000 respectively. **CONCLUSIONS:** Bosentan is a more cost-effective first-line therapy for patients with PAH FC III in Finland than either INHI or NAT.

PCV118

ECONOMIC EVALUATION OF INHALED ILOPROST IN PRIMARY PULMONARY HYPERTENSION IN THE UK

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OBJECTIVES: Primary Pulmonary Hypertension (PPH) is a rare, progressive degenerative disorder resulting in deteriorating functional status, poor quality of life and ultimately death. Inhaled iloprost is indicated for the treatment of patients with PPH at New York Heart Association (NYHA) functional class III. This study used an economic model to evaluate the cost-effectiveness of inhaled iloprost compared to current standard treatment in PPH. **METHODS:** A Markov model was used to allocate patients to states according to NYHA functional classification and treatment received. Patients enter the model when oral therapies have failed or not been tolerated and can improve NYHA classification, remain stable, deteriorate or die. The model compares i) inhaled iloprost until patients reach NYHA IV; then, intravenous epoprostenol with ii) immediate epoprostenol. Efficacy was taken from 12 week placebo controlled studies of each agent; quality of life from EQ-5D data collected in the study of iloprost. Costs were estimated at 2008 prices from the perspective of the NHS. The time horizon of the economic analysis is from failure of oral therapy until death; the primary outcome is cost per QALY gained. **RESULTS:** The model estimated that treating with inhaled iloprost will reduce lifetime cost by £348,000 (95% CI: £223,000, £529,000) and increase QALYs by 0.04 (–0.92, 0.51) per person treated. The model is sensitive to the cost of the drugs used, but less sensitive to the other costs of managing PPH, utility inputs or the sources of efficacy and safety inputs chosen. **CONCLUSIONS:** Using inhaled iloprost before epoprostenol offers substantial savings compared to immediate **epoprostenol, with no significant impact on health outcomes. The strategy** of reserving intravenous therapy for patients unable to tolerate less expensive and invasive therapies would be economically attractive.

PCV119

COST-EFFECTIVENESS OF ATORVASTATIN IN ACUTE CORONARY SYNDROME PATIENTS IN THE NETHERLANDS

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OBJECTIVES: To estimate the long- and short-term costs and effects of 2 year treatment with high-dose atorvastatin versus high and standard dose simvastatin in patients with acute coronary syndrome (ACS). **METHODS:** Efficacy is estimated based on a Bayesian meta-analysis linking decrease in LDL cholesterol levels to decreases in secondary cardiac events (MIs, strokes, cardiovascular deaths) drawing data from statin trials in ACS (AtoZ, MIRACL, PROVE-IT) and using priors from published statin meta analyses (CTT, Law). A Markov model combines estimates of the occurrence of later events; Dutch cost data; and quality of life. Risks are taken from the ACS CURE study. **RESULTS:** Analyses are conducted using a baseline event risk during the first 6 months of 12.1% and of 3.89% during later months. A base case analysis of atorvastatin 80 mg versus simvastatin 80 mg is chosen to align with clinical trial evidence used in the Bayesian analysis. This resulted in a cost per QALY of €29,000 and a number needed to treat to avoid one event (NNT) estimate of 80. The comparison of atorvastatin 80 mg and simvastatin 40 mg resulted in a NNT of approximately 58 and a cost per QALY estimate of €21,000, based on the assumption that atorvastatin 80 mg has an 18% greater efficacy in terms of LDL-C reduction. ICERs improve when risk with age is reduced, lower discount rates are used, and when atorvastatin cost is decreased. **CONCLUSIONS:** Based on preliminary findings, the probability that high-dose atorvastatin has a cost effectiveness ratio under €30,000 is estimated at 67.3% when compared to simvastatin 40 mg and at 56.9% when compared with 80 mg of simvastatin. Univariate sensitivity analyses show that changes in the costs of atorvastatin, and the risk of having events have the biggest impact on the results.

PCV120

DRONEDARONE IN ATRIAL FIBRILLATION: MODELING HEALTH OUTCOMES

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OBJECTIVES: Dronedarone is a new multichannel-blocking antiarrhythmic drug. In ATHENA, dronedarone (400 mg bid), reduced cardiovascular hospitalizations or death by 24% ($p < 0.0001$) versus standard of care (SOC) alone. Our objective was to predict the long-term health effects in terms of survival and quality-adjusted survival comparing dronedarone on top of SOC versus SOC alone, amiodarone or sotalol. **METHODS:** A state transition model (evaluated using 1st order Monte Carlo simulation) was developed. When treated with dronedarone or SOC, the risk of suffering symptomatic AF, stroke, acute coronary syndromes (ACS), congestive heart failure or cardiovascular death, or discontinuing treatment was estimated using survival analysis based on the ATHENA patient level data (n = 4,628). Death from non-cardiovascular causes or following stroke or CHF was based on UK national statistics and literature data. Patients treated with amiodarone or sotalol had the risk of events modified with relative risks based on a mixed treatment comparison. When discontinuing dronedarone or rhythm control therapy, patients were assumed to receive SOC alone and thus have the same transition probabilities as in the SOC arm. Outcomes were discounted at 3.5% per annum. **RESULTS:** Assuming lifetime treatment, the predicted survival with dronedarone was 9.01. The corresponding number of QALYs was 6.97. With amiodarone, the model predicts an expected survival of 7.14 years (5.52 QALYs). For sotalol the corresponding numbers were 5.83 years and 4.53 QALYs. **CONCLUSIONS:** Dronedarone demonstrated longer predicted survival compared to SOC alone, amiodarone and sotalol. This benefit is sustained when adjusted by quality of life, and is comparable with survival gains from established interventions in cardiology.

PCV121

ENDOVASCULAR TREATMENT FOR ACUTE ISCHEMIC STROKE IN THE NETHERLANDS. A COST-UTILITY ANALYSIS

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OBJECTIVES: Preliminary evidence indicates that intra-arterial (IA) thrombolysis is a more effective treatment for a subgroup of ischemic stroke patients who have a visible intracranial occlusion than intravenous (IV) thrombolysis. This cost-utility analysis compares four treatment strategies for ischemic stroke: conservative treatment, IV thrombolysis, IA thrombolysis and a bridging strategy of both IV and IA thrombolysis (with or without mechanical thrombectomy). **METHODS:** A health economic model was developed that compared the four different treatments. A decision tree with a Markov model was used to assess 6 months- and lifetime costs (in Euros) and effects (in QALYs) of these different treatment strategies. A literature search provided the estimates used in the decision tree and data from the EDISSE trial was used for cost estimates, combined with cost estimates from Erasmus MC University Hospital Rotterdam on IA thrombolysis. Current Dutch epidemiological information was used in the Markov model to calculate lifetime costs and effects for all treatment strategies. **RESULTS:** From a lifetime perspective, IV thrombolysis is the dominant treatment strategy: it saves €1717 per QALY gained compared to the conservative treatment. The bridging strategy costs an additional €7217 per QALY gained compared to IV thrombolysis. IA thrombolysis is dominated by the other strategies as it gains equal QALYs as IV thrombolysis while it is a slightly more expensive treatment. A probabilistic sensitivity analysis shows that depending on the willingness to pay, these treatment strategies are cost-effective at six months in 84 percent of cases. **CONCLUSIONS:** The bridging strategy significantly improves functional outcome of acute ischemic stroke patients at reasonable additional costs. However, more empirical studies need to be performed in order to reduce the considerable amount of uncertainty concerning the costs and effects of IA thrombolysis for acute ischemic stroke.

PCV122

ANGIOGRAPHY FOR DIAGNOSING PAOD: COST COMPARISON OF THE DIAGNOSTIC PROCEDURES MRA AND DSA

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OBJECTIVES: The aim of our study was to compare the costs and cost drivers of contrast-enhanced magnetic resonance angiography (MRA) and digital subtraction